



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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|---|--|---|--|-----------------------|
| Applicant's or agent's file reference KAP-05821-WO | | FOR FURTHER ACTION | | See Form PCT/IPEA/416 |
| International application No. PCT/EP2005/050986 | | International filing date (day/month/year) 04.03.2005 | Priority date (day/month/year) 04.03.2004 | |
| International Patent Classification (IPC) or national classification and IPC G05D1/02, E02F3/84, G08G1/123 | | | | |
| Applicant LEICA GEOSYSTEMS AG et al. | | | | |
| <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> | | | | |
| <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p> | | | | |
| Date of submission of the demand 11.10.2005 | | Date of completion of this report 24.01.2006 | | |
| Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | | Authorized Officer Vaño Gea, J Telephone No. +49 89 2399-  | | |

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2005/050986

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-51 as originally filed

Claims, Numbers

1-50 as originally filed

Drawings, Sheets

1/10-10/10 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2005/050986

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|------|
| Novelty (N) | Yes: Claims | 1-50 |
| | No: Claims | |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 1-50 |
| Industrial applicability (IA) | Yes: Claims | 1-50 |
| | No: Claims | |

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item II

Priority

The present international application claims the priority of European patent application EP04100887, filed on 04/03/2004. However, the provision of same subject is not fulfilled (Article 8 PCT and Article 4 of the Paris Convention), because the present international application defines features (management of wireless communication parameters) that go beyond the content of said priority document. Therefore, the claim to priority is considered to be **invalid** for the subject-matter added to the present international application, in particular for the present set of claims (PCT-Guidelines, II-6, 6.07-6.10).

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The following documents were cited in the International Search Report:

D1: US-A-5 850 341 (KLEIMENHAGEN KARL W ET AL) 15 December 1998

D2: US-B1-6 611 755 (COFFEE JOHN R ET AL) 26 August 2003

D3: US-A-6 084 870 (WOOTEN ET AL) 4 July 2000

2. Document D1 is considered to represent the most relevant state of the art for independent claim 1.

1. Document D1 discloses a method of controlling wireless messaging in a worksite area, in which worksite management messages are received by, or sent from, communicating entities operating within said worksite (D1, column 3, line 57 to column 4, line 24, column 6, lines 20-24 and figure 1), comprising the steps of:

- a) dividing at least part of said worksite area into elementary cells mapped in correspondence with the topology of said area, ... (D1, column 5, lines 17-21),

- b) for a given cell, establishing at least one worksite management attribute value of the worksite for said given cell, said worksite management attribute value pertaining to a parameter other than a said communication attribute parameter (D1, column 5, lines 22-34),
- c) storing, in a memory, values of said worksite management ... , each stored attribute value being electronically indexed to the elementary cell, or to the communication zone, for which it was determined (D1, column 7, lines 8-16), and
- d) forming a said worksite management message with an electronically readable content containing at least one worksite management attribute value (D1, column 8, lines 1-24 and figure 2),

from which the subject-matter of claim 1 only differs in the steps of:

- e) for a given cell or communication zone of said worksite, establishing at least one communication attribute value pertaining to a parameter of wireless communication to or from said given cell or communication zone,
 - f) accessing said memory to obtain at least one current communication attribute value in respect of a cell or communication zone to or from which said formed management message is to be communicated by a wireless communication, and
 - g) establishing a wireless communication to or from said cell or communication zone to send or receive said management message on the basis of said current communication attribute value electronically accessed from said memory.
2. The problem to be solved by the present invention may therefore be regarded as to increase the ability of the system to communicate with a larger number of vehicles over longer distances.

3. However, document D2 discloses a similar method of controlling wireless messaging used for managing a vehicle fleet (D2, column 1, lines 6-10) showing the steps of establishing communication attribute values pertaining to a parameter of wireless communication to or from given communication zones, storing them in a memory and establishing a wireless communication on the basis of said communication attribute value (D2, column 20, line 53 to column 21, line 30). The method according to D2 further shows the same advantage of managing a large number of vehicles over long distances employing only a limited bandwidth (D2, column 2, lines 19-23 and column 9, line 37 to column 10, line 8).
 4. Moreover, document D3 also discloses the use of cell-based communication systems (D3, column 1, lines 38-55) for the management of large numbers of vehicles (D3, column 1, lines 18-24).
 5. It would be obvious to the person skilled in the art, namely when the same result is to be achieved, to combine the teaching of documents D2 or D3 with corresponding effect to that of document D1, thereby arriving at a method of controlling wireless messaging according to claim 1. The subject-matter of claim 1 does therefore not involve an **inventive step** (Article 33(1) and (3) PCT).
 6. The same objection is raised *mutatis mutandis* for the corresponding independent apparatus claim 30.
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3. The features set out in claims 48 and 50 relate to usual matters of design, which are unable to lend **inventive step** to the method according to any of the claims to which they refer (Articles 33(1) and (3) PCT).
 4. The additional features of dependent claims 2-29, 31-47 and 49 define only constructional details which are rendered obvious by document D1 in combination with D2 or D3. Therefore, said claims do not contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the EPC with respect to **inventive step** (Articles 33(1) and (3) PCT).